

## **TV-Free** Video-in-motion Interface

### **TF-C20**

**Compatible with Mercedes Benz**  
**Comand 2.0**  
**Comand APS CD**  
**Comand APS 220**  
**navigation systems**

#### **Legal Information**

By law, watching moving pictures while driving is prohibited, the driver must not be distracted. We do not accept any liability for material damage or personal injury resulting, directly or indirectly, from installation or operation of this product. This product should only be used while standing or to display fixed menus or rear-view-camera video when the vehicle is moving, for example the MP3 menu for DVD upgrades.

Changes/updates of the vehicle's software can cause malfunctions of the interface. We offer free software-updates for our interfaces for one year after purchase. To receive a free update, the interface must be sent in at own cost. Labor cost for and other expenses involved with the software-updates will not be refunded.

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## 1. Prior to installation

Read the manual prior to installation. Technical knowledge is necessary for installation. The place of installation must be free of moisture and away from heat sources.

### 1.1. Delivery contents

*Take down the SW-version and HW-version of the interface boxes, and store this manual for support purposes.*

CAN-box TV-500  
HW \_\_\_\_\_ SW \_\_\_\_\_



Harness  
TV-ME20

## 1.2. Check compatibility of vehicle and accessories

Requirements	
<i>Vehicle</i>	Mercedes Benz C-Class (W203) til 04/2004, CL-Class (C215) from 09/2002 til 09/2003, CLK-Class (C208 W208) all years, CLK-Class (C209 W209) til 05/2004 , E-Class (W210) all years , G-Modell (W463) til 03/2007, ML-Class (W163) all years, S-Class (W220) from 09/2002 til 09/2003, SL-Class (R230) til 06/2004
<i>Navigation</i>	Comand 2.0, Comand APS CD

## 1.3. Setting the Dip-switches of the Can-Box TV-500

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
Video-in-motion permanent	ON	OFF	OFF	OFF	OFF	OFF
Video-in-motion selective*	OFF	OFF	OFF	OFF	OFF	OFF

\* With dip1 to OFF the included green cable is used to activate the video-in-motion function.

**Note:** Dip switch functions of the TV-500

Dip 1 – activation TV-free

Dip 2 – no function

Dip 3 – no function

Dip 4 – no function

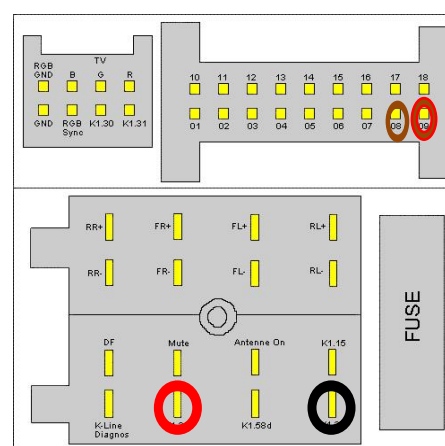
Dip 5 – CAN-bus termination resistor on the vehicle side

Dip 6 – CAN-bus termination resistor on the head-unit side

## 1.4. Pin-assignments

### Pin-assignment vehicle connector

● Red	+12V battery power	A Pin 4
● Black	Ground	A Pin 8
● Brown/red	CAN High	C2 Pin 9
● Brown	CAN Low	C2 Pin 8



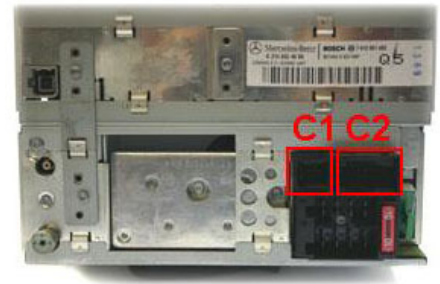
## Pin-assignment of the CAN-Box TV-500 (Molex 8pin)

Cable colour	Pin-No.	Assignment
● Yellow	Pin 4	CAN-HIGH – connection to the head-unit
● Blue	Pin 3	CAN-LOW – connection to the head-unit
●● Yellow/Black	Pin 8	CAN-HIGH – connection to the vehicle
●● Blue/Black	Pin 7	CAN-LOW – connection to the vehicle
● Red	Pin 1	+12V permanent
● Black	Pin 5	Ground
● Green	Pin 6	Activation of the video-in-motion function (+12V = TV-free activated)
● White	Pin 2	Trigger output (+12V DC 500mA)

## 2. Installation

**Switch off ignition and disconnect the vehicle's battery! If according to factory rules disconnecting the battery has to be avoided, it is usually sufficient to put the vehicle in sleep-mode. In case the sleep-mode does not show success, disconnect the battery with a resistor lead.**

- Remove the Comand from the center console
- Unplug the female 18pin AMP connector of the vehicle harness from the comand
- Change the sleeves of the female 18pin AMP connector from the vehicle harness (coloured) and the harness TV-ME20 (black)



- Connect TV-ME20 to 18pin AMP and connect 8pin Power ISO connection between Comand and vehicle harness

### 3. Activation of the video-in-motion function

The video-in-motion can be activated and deactivated by Dip 1 or alternatively by the included loose green cable in connection with a switch (not included in delivery).

#### Video-in-motion permanent

With dip1 to ON the video-in-motion function is activated permanently without disturbing the navigation performance.

#### Video-in-motion selective

With dip1 to OFF the included green cable is used to activate the video-in-motion function.

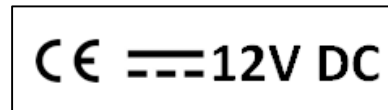
Connect a switch to the green cable and connect the green cable to +12V ACC.

- +12V = TV-Free is activated
- 0V = TV-Free is not activated

**Note:** The loose white cable is not required and must be isolated.

### 4. Specifications

Operation voltage	10.5 – 14.8V
Stand-by power drain	<2mA
Operation power drain	~60mA
Power consumption	~0,08W
Temperature range	-30°C to +80°C
Weight	44g
Measurements (box only) W x H x D	76 x 27 x 54 mm



### 5. Technical Support

**Caraudio-Systems Vertriebs GmbH**  
**manufacturer/distribution**

In den Fuchslöchern 3  
D-67240 Bobenheim-Roxheim

email [support@caraudio-systems.de](mailto:support@caraudio-systems.de)

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